

Supplementary Data

Supplemental Table 1- The queries used to search the online databases

Database	Search strategy
PubMed	(canola [tiab] OR canola [mesh] OR colza[tiab] OR rapeseed[tiab] OR "Brassica rapa" [mesh] OR "oilseed rape"[tiab] OR "Brassica napus"[mesh] OR "Brassica napus"[tiab] OR "Brassica rapa"[tiab] OR "Brassica juncea" [tiab]) AND ("Intervention Studies" [MESH] OR "intervention" [tiab] OR "controlled trial" [tiab] OR "randomized" [tiab] OR "randomised" [tiab] OR "random" [tiab] OR "randomly" [tiab] OR "placebo" [tiab] OR "assignment" [tiab] OR "clinical trial" [All Fields] OR "trial" [All Fields])
Scopus	TITLE-ABS-key("canola" OR "colza" OR "rapeseed" OR "Brassica rapa" OR "oilseed rape" OR "Brassica napus" OR "Brassica juncea") AND TITLE-ABS-KEY("Intervention " OR "controlled trial" OR "randomized" OR "randomised" OR "random" OR "randomly" OR "placebo" OR "assignment" OR "clinical trial" OR "trial")

Supplementary Data

Supplemental Table 2- The effect of canola oil intake on waist circumference (WC) in adults, overall and by subgroups, using random effects model

Study group	Trials/participants, n/n	Meta-analysis			Heterogeneity		
		Weighted mean difference (95% CI)	P-effect	Q statistic	P -within group	I ² (%)	P-between group
Gender							
Female	1/ 40	-0.5 (-7.54, 6.54)	0.889	0	-	-	
Male	1/ 63	-0.3 (-4.17, 3.57)	0.879	0	-	-	0.814
Both	4/ 378	5.27 (-2.66, 13.19)	0.193	42.27	0.0	92.9	
Duration							
4 weeks or shorter	1/ 60	24.4 (17.2, 31.6)	<0.001	0	-	-	
5-8 weeks	1/ 63	-0.3 (-4.17, 3.57)	0.879	0	-	-	
12-16 weeks	2/ 181	0.59 (-0.15, 1.32)	0.117	0.09	0.761	-	<0.001
24 weeks	2/ 177	-0.87 (-4.63, 2.89)	0.65	0	0.946	0.0	
Control group							
Olive oil	2/ 144	0.11 (-2.85, 3.06)	0.944	0.24	0.624	0.0	
Sunflower oil	2/ 136	-0.65 (-4.9, 3.59)	0.763	0	0.957	0.0	
Safflower oil	1/ 63	-0.3 (-4.17, 3.57)	0.879	0	-	-	<0.001
Control diet	1/ 60	24.4 (17.20, 31.6)	<0.001	0	-	-	
Whole wheat	1/ 141	0.6 (-0.14, 1.34)	0.112	0	-	-	
Subjects' characteristics							
Hyperlipidemia	2/ 156	11.71 (-12.93,36.34)	0.352	30.24	0	96.7	
T2DM ¹	1/ 141	0.6 (-0.14, 1.34)	0.112	0	-	-	0.002
Other	3/ 184	-0.54 (-3.39, 2.32)	0.714	0.04	0.978	0.0	
Overall	6/ 481	3.15 (-1.67, 7.97)	0.2	42.68	0	88.3	

¹ T2DM: Type 2 diabetes mellitus

Supplementary Data

Supplemental Table 3- The effect of canola oil intake on body fat in adults, overall and by subgroups, using random effects model

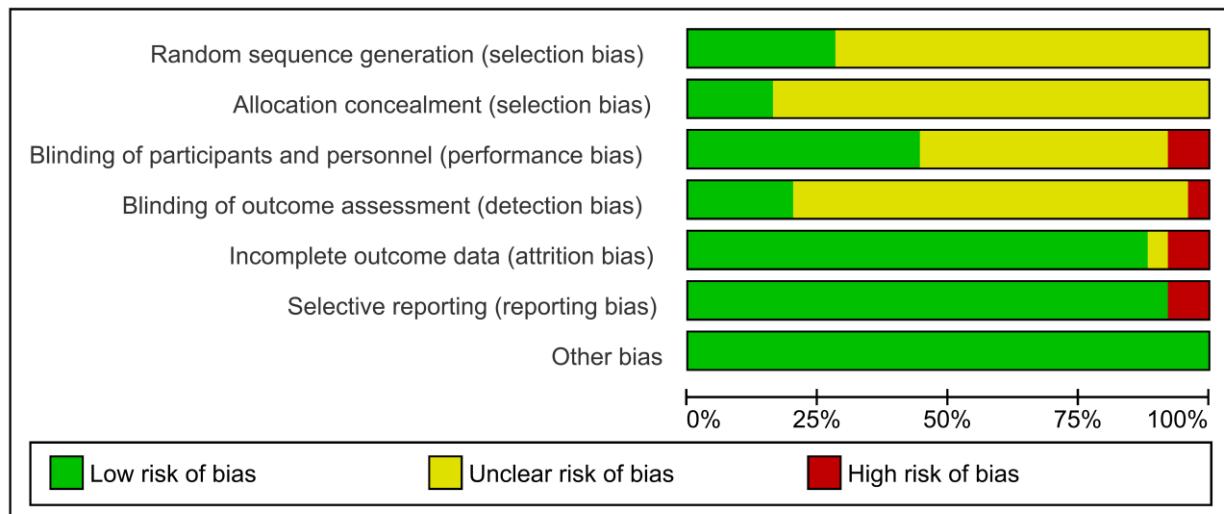
Study group	Trials/participants, n/n	Meta-analysis			Heterogeneity		
		Weighted mean difference (95% CI)	P- effect	Q statist ic	P- within group	I ² (%)	P- between group
Gender							
Female	1/51	-0.07 (-0.34, 0.20)	0.621	0.0	-	-	
Male	3/115	-0.01 (-0.20, 0.18)	0.906	1.34	0.512	0.0	0.927
Both	2/182	-0.04 (-0.22, 0.13)	0.642	0.35	0.670	0.0	
Duration							
4 weeks or shorter	2/119	-0.08 (-0.37, 0.22)	0.616	1.15	0.284	12.8	
5-8 weeks	1/47	0.00 (-0.28, 0.28)	1	0	-	-	0.88
24 weeks	1/81	-0.13 (-0.56, 0.30)	0.563	0	-	-	
Feeding							
Feeding	1/101	-0.02 (-0.22, 0.17)	0.803	0	-	-	
Non feeding	3/173	-0.08 (-0.29, 0.13)	0.435	1.39	0.708	0.0	0.687
Control group							
Olive oil	2/99	-0.20 (-0.59, 0.19)	0.308	0.62	0.433	0.0	0.864
Corn and Safflower oil	1/101	-0.02 (-0.22, 0.17)	0.803	0	-	-	
Flax and Safflower oil	1/101	-0.05(-0.24, 0.14)	0.617	0	-	-	
Fish oil	1/47	0.00 (-0.28, 0.28)	1	0	-	-	
Design							
Parallel	2/99	-0.20 (-0.59, 0.19)	0.308	0.62	0.433	0.0	
Crossover	2/148	-0.02 (-0.18, 0.14)	0.837	0.02	0.887	0.0	0.415
Subjects' characteristics							
Obesity	3/166	-0.03 (-0.19, 0.12)	0.686	1.22	0.543	0.0	
Other	1/81	-0.13 (-0.56, 0.30)	0.563	0	-	-	0.405
Overall	4/247	-0.04 (-0.19, 0.10)	0.564	1.39	0.709	0.0	

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Supplemental Table 4- The effect of canola oil intake on waist to hip ratio (WHR) in adults, overall and by subgroups, using random effects model

Study group	Trials/participants, n/n	Meta-analysis			Heterogeneity		
		Weighted mean difference (95% CI)	P- effect	Q statistic	P- within group	I ² (%)	P-between group
Gender							
Female	1/ 40	-0.02 (-0.06, 0.02)	0.332	0	-	-	
Male	1/ 18	0.00 (-0.03, 0.03)	1	0	-	-	0.618
Both	4/ 203	0.00 (-0.00, 0.00)	0.886	0.64	0.887	0.0	
Duration							
4 weeks or shorter	4/ 193	0.00 (-0.00, 0.00)	0.886	0.64	0.887	0.0	
5-8 weeks	1/ 28	0.00 (-0.00, 0.00)	1	0	-	-	0.618
12-16 weeks	1/ 40	-0.02 (-0.06, 0.02)	0.332	0	-	-	
Feeding							
Feeding	1/ 95	0.01 (-0.01, 0.03)	0.416	0	-	-	
Non feeding	5/ 166	-0.0 (-0.0, 0.0)	0.919	0.93	0.92	0.0	0.987
Control group							
Olive oil	1/ 18	0.0 (-0.03, 0.03)	1	0	-	-	
Sunflower oil	2/ 135	-0.0 (-0.03, 0.03)	0.975	1.56	0.211	36	
Control diet	1/ 60	0.00 (-0.22, 0.22)	1	0	-	-	1
Nut	1/ 28	0.00 (-0.02, 0.02)	1	0	-	-	
Saturated fat	1/ 20	0.00 (-0.00, 0.00)	1	0	-	-	
Design							
Parallel	4/ 213	0.00 (-0.02, 0.02)	0.873	1.58	0.664	0.0	
Crossover	2/ 48	0.00 (-0.00, 0.00)	1	0	1.000	0.0	0.877
Subjects' characteristics							
Hyperlipidemia	2/ 155	0.01 (-0.01, 0.03)	0.419	0.01	0.928	0.0	
Obesity	1/ 18	0.00 (-0.03, 0.03)	1	0	-	-	
Healthy	2/ 48	0.00 (-0.00, 0.00)	1	0	1.000	0.0	0.661
Other	1/ 40	-0.02 (-0.06, 0.02)	0.332	0	-	-	
Overall	6/ 261	0.00 (-0.00, 0.00)	0.968	1.6	0.901	0.0	

Supplementary Data



Supplemental Figure 1- The summary of risk of bias assessment using the Cochrane collaboration's tool